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10/03/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/696,721	10/27/2003	Alejandro Bertagni	OSBX-100754	6326	
7590	11/03/2004	EXAMINER			
SAN MARTIN, EDGARDO					
		ART UNIT	PAPER NUMBER	2837	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/696,721	BERTAGNI ET AL.	
	<b>Examiner</b> Edgardo San Martin	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 27 October 2003.  
2a)  This action is **FINAL**.                            2b)  This action is non-final.  
3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 6-8 and 10-14 is/are allowed.

6)  Claim(s) 1-3,5,9 and 15-19 is/are rejected.

7)  Claim(s) 4,20 and 21 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/30/04.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

**DETAILED ACTION**

***Claim Objections***

1. Claims 13 and 14 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 10 and 11. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 9 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of the phrase "and/or" render the claims indefinite because it is not clear if the limitations are to be considered in combination or in the alternative.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 15, 16, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Graham et al. (US 4,926,962).

With respect to claims 1 and 15, Graham et al. teach a planar diaphragm loudspeaker for use in a suspended ceiling grid defining rectangular openings, comprising a rectangular, planar diaphragm (Fig.3, Item 14) formed of a unitary piece of polymer material sized to fit an opening of the ceiling grid and having a front surface and a rear surface, the front surface defining a three-dimensional, textured pattern (Figs.1 and 3, Item 10) across the entirety of the front surface; and an electromagnetic driver (Fig.3, Item 22) coupled to the rear surface of the diaphragm such that the driver will cause the front surface of the diaphragm to vibrate and reproduce sound in response to an electrical signal (Col.2, Line 51 – Col.5, Line 12).

With respect to claims 2 and 16, Graham et al. teach wherein the textured pattern is formed of indentations in the front surface of the diaphragm (Figs.1 and 3, Item 10).

With respect to claims 17 and 18, Graham et al. teach wherein the diaphragm includes granular material or a fiber compound attached to the front surface thereof, thereby defining the textured pattern (Col.1, Line 53 – Col.2, Line 19).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al. (US 4,926,962).

With respect to claims 3 and 19, Graham et al. teach the limitations discussed in a previous rejection, but fail to disclose wherein the textured pattern is etched into the front surface of the diaphragm.

The Examiner takes Official Notice that it is well known in the art of engineering processes to employ etching to remove material from an element to obtain a desired configuration.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ an etching process to remove material from the Graham et al. diaphragm surface in order to create a textured pattern that would simulate the textured pattern of ceiling tiles.

With respect to claim 5, the Examiner takes Official Notice that it is well known in the art of acoustics to employ a shroud to cover and protect the diaphragm, and to be fixed to the diaphragm in a desired way providing a flush mounting or a tegular-drop mounting.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to provide a shroud to cover and protect the Graham et al. diaphragm, and to be fixed to the diaphragm in a desired way providing a flush mounting or a tegular-drop mounting, because they are common practices in the art.

#### ***Allowable Subject Matter***

5. Claims 4, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 6 – 8 and 10 – 14 are allowed.

Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- The references of the Prior Art of record fail to teach, or suggest any obvious combination of the limitations discussed above, and further comprising the limitations, in combination, of (With respect to claims 4,

**6 and 20)** an outer region about the periphery of the diaphragm, the density of the outer region being at least 5pcf throughout the outer region, and an inner region circumscribed by the outer region, the density of the inner region being at or below about 3pcf throughout the inner region.

***Conclusion***

7. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín  
Patent Examiner  
Art Unit 2837  
Class 181  
October 31, 2004